

Notice of Allowability

Application No.

10/762,100

Examiner

Disler Paul

Applicant(s)

HERRE ET AL.

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/17/07.
2. ☒ The allowed claim(s) is/are 1-25.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date <u>1/31; 3/29; 6/20/05</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Laurence A. Greenberg on Dec. 19. 2007.

Re claims 24- 25, delete " Computer program having a program code ", and insert/add " A computer -readable medium having a computer- executable instruction"

Allowable Subject Matter

Re claim 1, while Baumgarte et al. disclose of the apparatus for constructing a multi-channel output signal using an input signal and parametric side information (fig.1 (108,114,116; fig.2/wt parameter info and input signals multiple output channels produced), the input signal including a first input channel and a second input channel derived from an original multi-channel signal (fig.1 (118); fig.2 (208)), the original multi-channel signal having a plurality of channels, the plurality of channels including at least two original channels, wherein a first original channel is a first one of the at least two original channels, and wherein a second original channel is

a second one of the at least two original channels (fig.1; fig.2 (208); fig.2[0024]/downmix technique to reproduce the multichannels in varying ways), and the parametric side information describing interrelations between original channels of the multi-channel original signal (page 1[0008] line 6-9/for each frequency inter-aural time difference value between the two channels), comprising: means for determining a base channel and doing synthesizing (fig.wt 308,312); col.5 line 30-60).

However, Baumgarte et al. fail to disclose of the specific wherein the means for determining a first base channel by selecting one of the first and the second input channels or a combination of the first and the second input channels, and for determining a second base channel by selecting the other of the first and the second input channels or a different combination of the first and the second input channels, such that the second base channel is different from the first base channel. Means for synthesizing the first output channel using the parametric information and the first base channel to obtain a first synthesize output channel which is located at the one side of the assume listener position, and for synthesizing a second output channel using the parametric side information and the second base channel, the second output channel being a reproduce version of the second original channel which is located at the same side of the assume listener position.

Similarly, Re claims 21,25 have been allowed for same reasons as a above.

Also Re claim 22, Baumgarte et al. disclose of the apparatus for generating a downmix signal from a multi-channel original signal, the downmix signal having a number of channels being smaller than a number of original channels (fig.2 (208,210; page 2[0024]; fig.3(308)), comprising: means for calculating a first downmix channel and a second downmix channel using a downmix rule (fig.2 (210); mono two components); means for calculating parametric level information representing an energy distribution among the channels in the multi-channel original signal (fig.2(216)).

However, While, baumgarte et al. fail to disclose of the means for determining a coherence measure between two original channels with the two original channels being located at one side of an assumed listener position; the means for forming an output signal using the first and the second downmix channels, the parametric level information and only at least one coherence measure between two original channels located at the one side or a value derived from the at least one coherence measure, but not using any coherence measure between channels located at different sides of the assumed listener position.

Similarly, Re claims 24,26 have been allowed for same reasons as a above.

1. Claims 1-26 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Disler Paul whose telephone number is 571-272-2222. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY OFFICE 100

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